UNIVERSITY OF ILLINOIS LIBRARY
DEC 19 1918

December 1918

Metal Trades

Formerly
Western Engineering

Generated on 2024-09-30 01:38 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from
UNIVERSITY OF ILLINOIS AT
URBANA-CHAMPAIGN

CALCO AUTOMATIC DRAINAGE GATE

USED IN CONNECTION WITH

"ARMCO" IRON CORRUGATED PIPE

drains flooded or sodden lands, with no expenditure for power or supervision

Once installed the Calco Automatic Drainage Gate needs no attention. The valve is so counterbalanced as to open under very slight water pressure. Gate closes instantly and tightly when pressure ceases, preventing back-flow.

The ideal gate for use in connection with lands protected by dykes or levees along waterways subject to flood conditions or tidal influence. Full particulars on request.

For full information regarding Automatic Drainage Gate, "Armco" Iron Culverts, Flumes, Tanks, Road Signs, Roofing, Sheets or Formed Products, address nearest manufacturer named below.

California, Los Angeles
California Corrugated Culvert Co.

California, West Berkeley
California Corrugated Culvert Co.

Colorado, Denver
R. Hardesty Mfg. Co.

Montana, Missoula
Montana Culvert & Flume Co.

Nebraska, Wahoo
Nebraska Culvert & Mfg. Co.

Ohio, Middletown
The Ohio Corrugated Culvert Co.
American Rolling Mill Co.

Oregon, Portland
Coast Culvert & Flume Co.

South Dakota, Sioux Falls
Sioux Falls Metal Culvert Co.

Texas, Houston
Lone Star Culvert Co.

Texas, El Paso
Western Metal Mfg. Co

Utah, Woods Cross
Utah Corrugated Culvert & Flume Co

Washington, Spokane
Spokane Culvert & Tank Co.

CANADA—Canada Ingot Iron Co., Ltd., Guelph, Sherbrooke, Winnipeg, Calgary.

Generated on 2024-09-30 01:40 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Metal Trades

C. T. HUTCHINSON - - - - - - - - Editor
A. T. PARSONS - - - - - - Associate Editor
D. C. FESSENDEN - - - - - - Associate Editor

420 Market Street, San Francisco

Member Audit Bureau of Circulations

PUBLISHED MONTHLY BY THE
WESTERN ENGINEERING PUBLISHING COMPANY

Entered under the name of Western Engineering as second-class matter, June 1, 1912, at the San Francisco post-office, under Act of March 3, 1879. Name changed to Metal Trades with issue of October 1918.

Telephone Sutter 1854 Cable address: Pertusola
Code: Bedford McNeill (2 editions).

ANNUAL SUBSCRIPTION:
United States and Possessions, and Mexico.....$3
Canada.....$4
Other Countries in Postal Union.....$5
Price per Copy, 25 Cents

VOL. 9 NO. 12 SAN FRANCISCO, DECEMBER, 1918

Buyers Directory—Page 18
Advertisers Index—Page 20

TABLE OF CONTENTS

EDITORIAL: Page 471

ARTICLES

MANUFACTURE OF CYLINDERS FOR THE HALL-SCOTT AEROPLANE ENGINE
By Richard Vosbrink. Page 475
These cylinders are used in the 'Liberty' motor. They are made of a grade of cast-iron sometimes erroneously called semi-steel. The average thickness of metal is ⅛ in., and extreme accuracy of dimension is required. The more important operations in their manufacture, all of which is done in San Francisco Bay shops, are described.

GET BUSY. Page 480
Hi Carbon tells why and how to his cronies, Smithers and Pettigrew, and incidentally discloses by what sign a man is known to be dead from his chin up.

METHODS OF MEETING THE LABOR SHORTAGE.
By H. Kerr Thomas. Page 483
Deals principally with the methods adopted by the Rolls-Royce Co. in using the indifferent labor-supply available in England at the present time to produce a high-class aeroplane engine, and shows how similar methods must be adopted in this country in order to meet after-war competition.

AMERICAN RED CROSS RECONSTRUCTION OF THE INJURED. Page 485
This work includes both repairing bodily injuries and training the disabled men to become self-supporting.

FOREIGN TRADE EXTENSION. Page 486
Abstracts of addresses delivered at the annual convention of the American Manufacturers' Export Association. The Webb-Pomerene law and its advantages in the export trade, the extension of foreign credit, and the establishment of a foreign sales organization were among the subjects discussed.

THE FERRO-ALLOYS.
By J. W. Richards. Page 488
Discusses particularly ferro-molybdenum, ferro-vanadium, ferro-titanium, and ferro-boron.

PURCHASING RAW MATERIAL BY SPECIFICATION.
By Welton J. Crook. Page 490
Shows the advantage and the actual saving to even a small concern of maintaining a laboratory and purchasing by specification. The general provisions that a specification should contain are discussed.

LATIN-AMERICAN DEMAND FOR AMERICAN STEEL. Page 491

THE WASTES OF THE WEST—II. ORGANIZATION.
By Minor Chipman. Page 492
In this article Mr. Chipman discusses the Musicians' Union, and shows that without the members realizing it, an orchestra is run on scientific-management principles, and that such procedure is essential in order to obtain results, and is accepted as a matter of course.

A LETTER FROM THE FRONT. Page 494

NEW PRIORITY LIST ISSUED BY WAR BOARD. Page 496
Signing of the armistice has caused the relaxation of many restrictions and the abolition of others.

CAUSES AND PREVENTION OF ACCIDENTS IN THE METAL INDUSTRIES. Page 498
Taken from bulletin of U. S. Department of Labor. Great reductions have been made in both the frequency and the severity of accidents, and there is reason to hope for further reductions. The importance of the human factor has been exaggerated.

THE EMPLOYMENT MANAGER: A NEW FACTOR IN INDUSTRIAL RELATIONS.
By Edward D. Jones. Page 500
Organization of industrial plants into departments demands establishment of an employment-management department, dealing with the relation between the employer and employee, at least as important as the sales department, the designing department, etc. Some of the activities of the employment manager are described.

SPECIAL ALLOY-STEELS IN USE ON THE PACIFIC COAST.
By H. G. Bain. Page 502
The principal alloys in use are 3½% nickel-steel and chrome-nickel steel. The use of these steels and the methods of heating and tempering are discussed.

FOUNDRY CHIPPINGS

IMPRESSIONS FROM THE AMERICAN FOUNDRYMEN'S ASSOCIATION CONVENTION AT MILWAUKEE, OCTOBER 7 TO 11, 1918.
By C. M. Henderson. Page 503

THE APPRENTICE QUESTION. Page 504

A FEW HINTS ON THE CUPOLA.
By John Hedley. Page 505

THE IRON AND STEEL SITUATION. Page 507

BOOK OF A THOUSAND EXCUSES FOR ALL PERSONS CONNECTED WITH THE FOUNDRY TRADE. CHAPTER X. EXCUSES OF THE MACHINE-SHOP BOSS FOR NON-DELIVERY OF A JOB. Page 507

TRADE NOTES. Page 508

FOUNDRYMEN'S CLUB OF CALIFORNIA. Page 509
The Next Meeting; Boosts; Maybe; Formula for Sandless Core; Positions Wanted.

DEPARTMENTS

NOTABLE RECENT TECHNICAL ARTICLES IN ABSTRACT. Page 512

INDUSTRIAL EQUIPMENT. Page 513
A New Method of Tempering Steel; Making Ferro-Alloys at Heroult, California.

TRADE NOTES. Page 514

BOOK REVIEW. Page 516

Generated on 2024-09-30 01:36 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

ENTERPRISE FOUNDRY CO.

MANUFACTURERS OF ENTERPRISE GAS ENGINES

FOUNDRY AND MACHINE WORK

IRON, STEEL AND BRASS CASTINGS

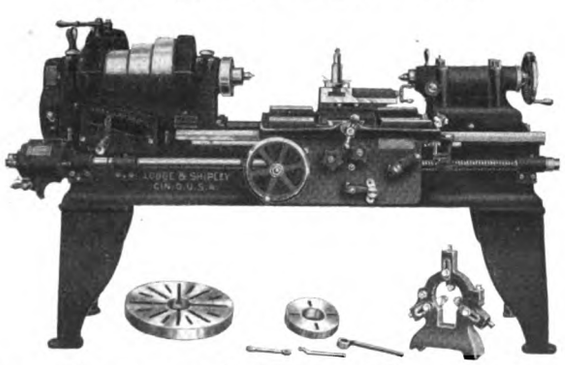
BRAKE SHOES
SASH WEIGHTS

EXECUTIVE OFFICES:
SOUTHERN PACIFIC BUILDING
20-24 Steuart Street

SAN FRANCISCO **CALIFORNIA**

Machine Tools
SMALL TOOLS AND SUPPLIES
OF ALL KINDS

FOR
Machine Shops
Garages
Pattern Shops



FOR
Shipyards
Forge Shops
Engine Manufacturers

Send for Copy of Our New Catalogue

HARRON, RICKARD & McCONE
SAN FRANCISCO LOS ANGELES

HARRON, RICKARD & McCONE

San Francisco **Los Angeles**

CALIFORNIA

Generated on 2024-09-30 01:39 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

WESTERN PIPE & STEEL CO. OF CALIFORNIA

Riveted Steel Tanks

We design, fabricate and erect cylindrical, rectangular, conical or round-bottom tanks for municipal, railroad or industrial service. Those who specify our steel tanks are assured of the best possible workmanship and immediate delivery. We are prepared to design, build and erect tanks to meet your particular requirements.

Riveted Steel Pipe

Riveted steel pipe is adapted to many uses, chief of which are municipal water systems, irrigation lines, hydraulic mining, and power lines. Its durability as compared with other types of pipe is unquestioned. The ablest engineers are now recommending its use where efficiency and low maintenance cost are desired.

Specify WESTERN of course

The favorable location of our three factories not only enables us to make prompt shipments, but also reduces the first cost through a reduction in freight. Your order will be executed at the factory from which the best rates can be secured.

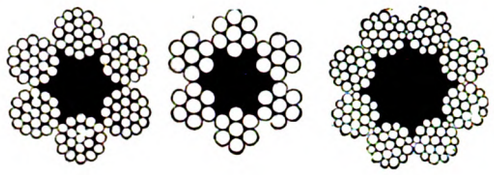
Western Pipe & Steel Company

OF CALIFORNIA

444 Market Street, San Francisco — 1758 N. Broadway, Los Angeles

BAKERSFIELD TAFT FRESNO STOCKTON SACRAMENTO

Factories at Richmond, Taft and Los Angeles



67 Kinds of "Crescent" Wire Rope

shown in our catalog

Not only do we keep standard ropes in stock for every engineering, contracting, mining or shipping requirement, but we are prepared to design and furnish special ropes for severe or unusual conditions.

Furthermore, our engineers are at your service to give you the benefit of their experience in all problems involving the use of rope.

As a starter why not get a copy of our catalog for you files

Geo. C. Moon Co.
Wire Rope for all purposes
Works: Garwood, New Jersey
NEW YORK, 124 White Street
CLEVELAND, Rockefeller Bldg.
WESTERN AGENTS: Rolph Mills & Co., 149 California St., San Francisco, Cal.

32

Generated on 2024-09-30 01:39 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google

Digitized by Google

Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PACIFIC

Redwood Tanks and Pipe

are best for the storage or conveyance of water, oil or destructive chemicals. Their cost is away below metal and their use conserves steel for reconstruction purposes.

Carefully selected seasoned redwood such as these tanks and pipe are made of will not shrink, swell or warp.

The Government has placed its endorsement on Pacific Tanks and Pipe by taking over the complete output of our plant. Now, however, we are in shape to handle local orders immediately. Don't delay your order a day. Write right away.

PACIFIC TANK & PIPE CO.

THE STANDARD SINCE 88

300 Market Street, San Francisco CALIFORNIA 901 Trust & Savings Ba k Bldg., Los Angeles

QUALITY CASTINGS

We can give you iron of the correct analysis for your purpose and duplicate the quality exactly on repeat orders.

Grey Iron Castings
Pipe Fittings Pattern Work
Corrosiron—the acid-proof metal

PACIFIC FOUNDRY COMPANY

Eighteenth and Harrison Streets
San Francisco, Cal.

Generated on 2024-09-30 01:40 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

ORONITE BRAND
ROOF PAINT
STANDARD OIL COMPANY
CALIFORNIA

GUARD AGAINST UNDUE DEPRECIATION OF PLANT USE ORONITE PAINT

Industrial plants are called on today for more continuous and speedy operation than ever before. They must be kept going and not allowed to shut down for repairs made necessary by failure to protect metal from corrosion.

Millions of dollars worth of steel and iron is wasted annually through deterioration.

Help keep industries running and protect yourself by painting exposed surfaces with Oronite Paint. It forms an impervious coating and bonds perfectly with the surface.

Oronite Enamel Paint can be used with the same effect on hot surfaces subject to the action of acids, alkalis or salt water.

Send for Bulletin No. 11.

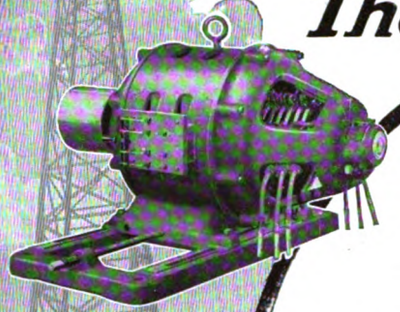
ORONITE AROTURPS

is a perfect solvent and thinner for the drying oils in paint. It is better than turpentine. It evaporates within a reasonable time, leaving the drying oils to form a tough film to bond the particles of pigment together and to the surface painted.

STANDARD OIL COMPANY
(CALIFORNIA)

Generated on 2024-09-30 01:42 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The Superior Drive
For Oil Wells—

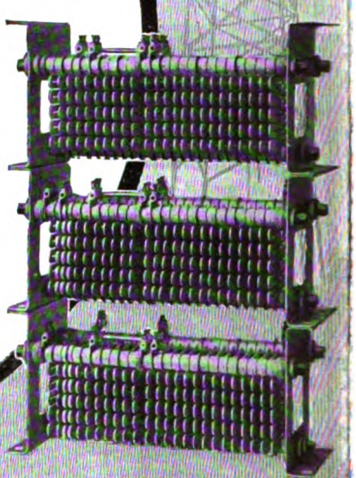


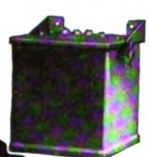
—Specially designed for your service
—Rugged construction
—Easy and exact speed control
—Unexcelled reliability
—Will do all steam power can do, and do it more economically

We do not ask you to alter your conditions to suit them to electric drive, for this equipment is adapted to the special requirements of the oil fields.

It will pay you to investigate this simple, superior oil well drive, and the saving it is sure to effect.

Descriptive Leaflet 1155 will be mailed upon request.





WESTINGHOUSE ELECTRIC & MANUFACTURING CO.,
East Pittsburgh, Pa.

Westinghouse

Wholesale Dealers in

SCRAP IRON
Relaying Rails
Structural Material

Complete Plants Bought and Wrecked

California Iron Yards Company
554 Bryant St. **San Francisco**

A perfect trench at one cut

and variable width trenches with a single wheel are the big features offered for a quarter of a century in the

Buckeye Ditcher
(Traction Drive)

Send for the catalog which tells in detail how they are made, why they stand the wear and tear, and shows photos of many machines at work.

We would like to tell you about repeat orders from California users.

The Buckeye Traction Ditcher Co., Findlay, Ohio, makes a full line of traction tile, and open ditchers, trench and pipe-line excavators, clay and peat diggers.

Where would you like the catalog sent?

A. L. YOUNG MACHINERY COMPANY
26-28 FREMONT ST., SAN FRANCISCO

Generated on 2024-09-30 01:42 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

No 35 "Little David" Chipping Hammer

No. 90 "Little David" Long Stroke Riveting Hammer

No. 7 "Little David" Grinder

No. 22 "Little David" Reversible Drill

Why Work by Hand?

Your workmen's time is costing too much for you to allow them to continue doing by hand the work of drilling, reaming, tapping, grinding, smoothing castings, chipping metal or driving rivets. These operations can be speeded up and lessened in cost by applying

"Little David" Pneumatic Tools

"Little David" Tools are easy to handle, conveniently adapted to a great variety of jobs and readily understood and operated by the workmen. They are inexpensive to operate, and a saving investment when their output is compared with hand work.

The "Little David" Catalog describes the complete line of tools and gives suggestive hints of their possible application. Ask us to send you a copy.

INGERSOLL-RAND COMPANY

11 Broadway, New York **165 Q. Victoria St., London**

Offices the World Over

73-PT

Orders for Ship Steel

THE order clerk at a shipyard who carefully works out order details under some system which has proven to be good, saves time and money both for the shipbuilder and the steel maker.

The number of shipping notices and bills of lading requested of the steel maker should be kept to an absolute minimum. Requirements of the shipbuilder as to shipping notices and bills of lading and mailing instructions should be explicit (especially since in some cases certain Government departments require copies) and should be clearly set forth by the order clerk when orders are placed with the makers. To furnish additional copies after material has been shipped entails needless delay and expense.

Further, specifications for quality and requirements as to inspection are different matters and should not be confused on order forms. Particular care should be taken to insure that all items on an order are for the same consignment.

Standard forms for ordering as recommended by American steel makers and adopted by the Emergency Fleet Corporation appear in pamphlet entitled "Structural Steel for Ships" which can be obtained on application. It is recommended that a copy of this pamphlet be in the hands of all shipyard order clerks and that its provisions be carefully followed.

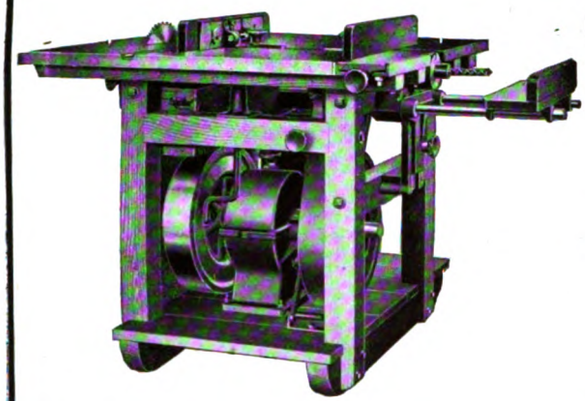
To do so means the avoidance of delay in the transmission to and the execution of orders at the mills and an increase in the production of ship steel.

Carnegie Steel Company

General Offices: Pittsburgh, Pa.

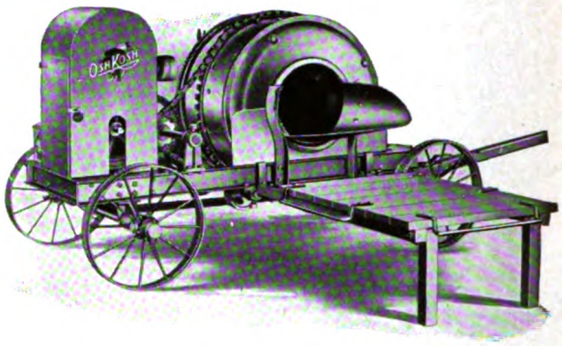
1007

Generated on 2024-09-30 01:37 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



Oshkosh Mfg. Co.

Eveready Saw Rigs, Mixers, Back Fillers and Trench Pumps in stock



GARFIELD & COMPANY

1232 Hearst Bldg., S. F. Phone Sutter 1036

30-ft. Boom – ½-yd. Bucket

AUSTIN

COMBINATION

Dragline-Clamshell Bucket-Crane

For results, both quick and economical, try this Austin machine for excavating, trench digging, street grading, wagon loading, railroad ditching, handling crushed stone, sand and gravel, stripping and handling coal, cleaning out ditches.

Used as a locomotive crane, its capacity varies according to the radius, and is equal to any similar machine.

It is built of steel and designed for heavy duty work. Its simplicity renders it free from cost y breakdowns.

F. C. AUSTIN COMPANY, Inc., Railway Exchange Bldg., Chicago

SALES AGENT:

W. H. COWEN, 417 Market St., San Francisco

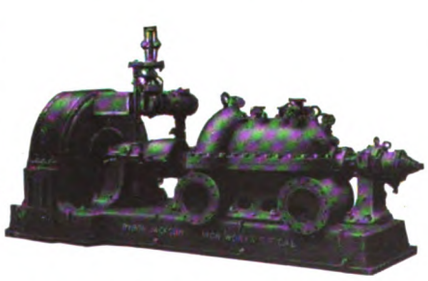
Centrifugal AND Turbine Pumps

FOR

IRRIGATION
RECLAMATION
MINES
WATER WORKS
BOILER FEED
SUGAR MILLS
SAND AND GRAVEL

Capacities: 10 to 100,000 gallons per minute, any head.

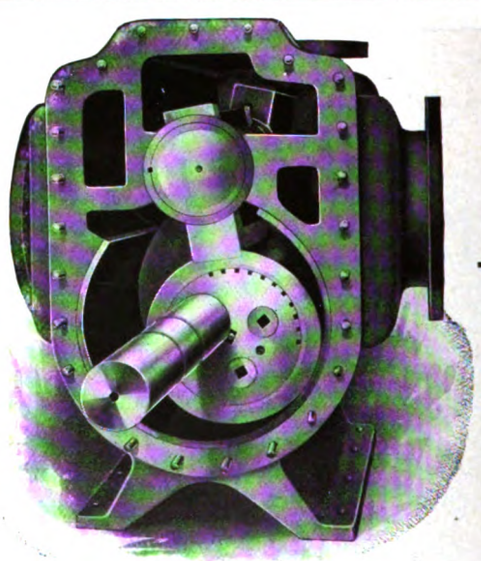
We shall be more than pleased to furnish preliminary estimates for any type of pumping plant.



BYRON JACKSON IRON WORKS, Inc.

SAN FRANCISCO

Write for Catalogue No. 30



KINNEY ROTATING PLUNGER PUMPS

After devoting 90% of its pump output to army, navy and shipping board requirements, the Company will soon be able to give better deliveries than ever owing to its greatly enlarged plant.

Write for New Bulletins

KINNEY MANUFACTURING COMPANY

California Branch: Underwood Bldg., San Francisco

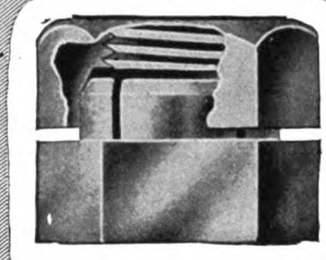
Generated on 2024-09-30 01:45 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google

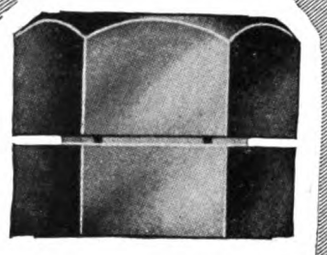
Digitized by Google

Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

DRAKE LOCK-NUTS

TRADE MARK REGISTERED U.S. PAT. OFF.





MILLED
FROM
THE BAR

"Never Jar Loose"

THE MECHANICAL PRINCIPLE IS CORRECT
SIMPLE TO APPLY

A Micrometer Adjustment The First Turn Up

Eliminates Pins and Drilling Bolts

TIME SAVED IN APPLICATION AND ADJUSTMENT
OFTEN SAVES ENTIRE COST

Now Used by Manufacturers of

Highest Grade Engine, Machine and Automobile Work

For Sale by Leading Supply Dealers
Throughout the U. S. A.

BUY W. S. S.

EARLY DELIVERIES

¼ to 1" S. A. E.

WRITE TODAY FOR SAMPLE

¼ to 2" U. S. S.

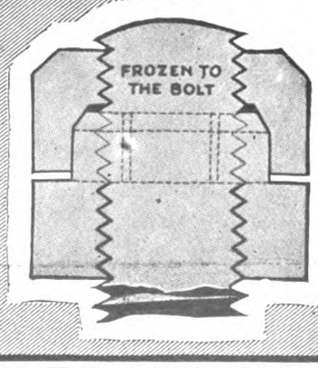
BUY W. S. S.

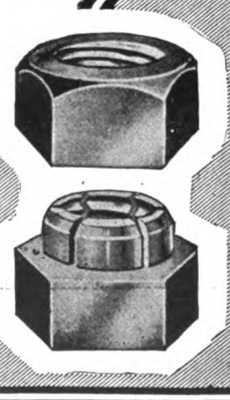
Whitworth Standard Threads
British Standard Fine Threads } to order

DRAKE LOCK-NUT CO.

PLANT AND OFFICE
1403 Folsom St., San Francicco, Cal., U. S. A.

EASTERN PLANT AND OFFICE
Cleveland, Ohio, U. S.A.

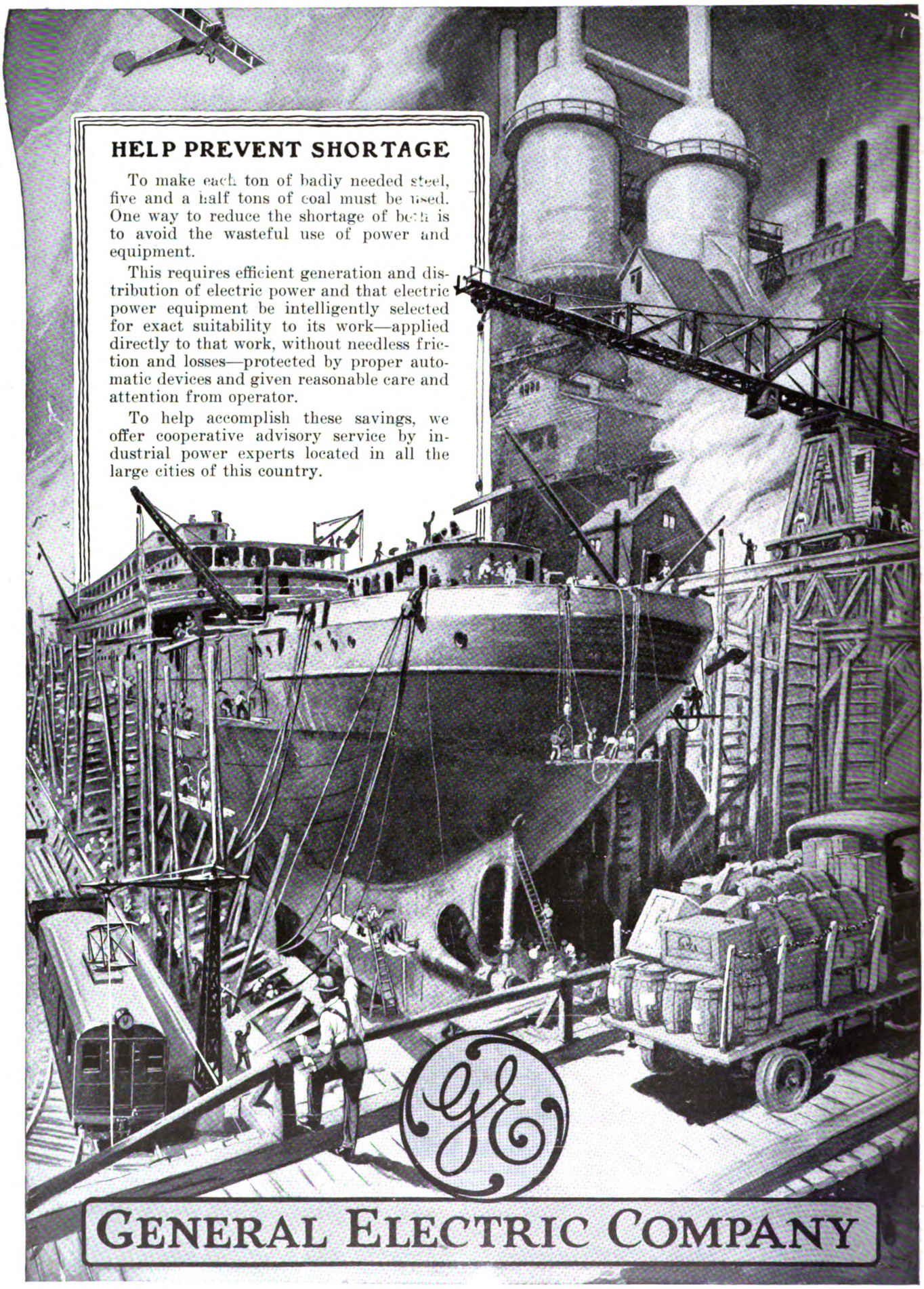




PATENTED

UNITED STATES,	Sept.	19, 1916
UNITED STATES,	July	2, 1918
GREAT BRITAIN,	Feb.	12, 1917
FRANCE,	March	3, 1917
ITALY,	March	5, 1917

Generated on 2024-09-30 01:40 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN


HELP PREVENT SHORTAGE
To make each ton of badly needed steel, five and a half tons of coal must be used. One way to reduce the shortage of both is to avoid the wasteful use of power and equipment.
This requires efficient generation and distribution of electric power and that electric power equipment be intelligently selected for exact suitability to its work—applied directly to that work, without needless friction and losses—protected by proper automatic devices and given reasonable care and attention from operator.
To help accomplish these savings, we offer cooperative advisory service by industrial power experts located in all the large cities of this country.
GE
GENERAL ELECTRIC COMPANY

Principal Office, Schenectady, N. Y. Sales Offices in All Large Cities

Generated on 2024-09-30 01:41 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

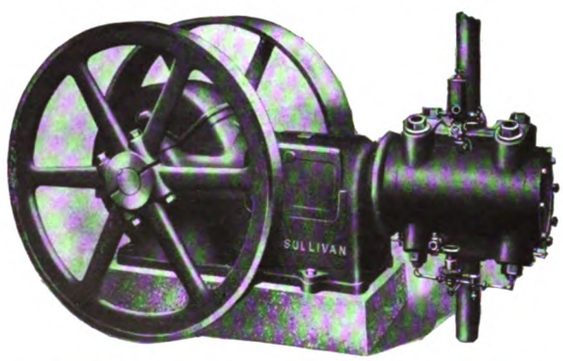
SIMPSON
SAN FRANCISCO

USED MACHINERY

LARGE STOCK
PROMPT DELIVERY
· WRITE · WIRE · CALL ·

A·H·SIMPSON·CO·
634 STEVENSON STREET
SAN FRANCISCO

READY NOW



We can Ship from Stock These Belted Single Stage Straight-line

"WG3" Sullivan Air Compressors

In several sizes, from 50 cu. ft. up; others for prompt delivery

Simplicity, strength and economy in operation are qualities that should interest you in this sturdy SULLIVAN AIR COMPRESSOR.

Ask for Bulletin 3175-G

Sullivan Machinery Co.
582 Market St., San Francisco

Giant Powder did its share in constructing the Union Pacific Railroad
EUREKA STUMPING
GIANT STUMPING
POWDER
Print made in 1866 when Giant Powder Co. was founded

GIANT—the original American high explosive

Giant Powders were introduced by us in 1866 just in time to blast the path of the Union Pacific through the mountains. These two essentially American and Western institutions have lived through the same half century of growth and progress.

Giant, the first American high explosive, has pioneered the West. It has operated its mines and quarries, opened its roads and railroads, cleared its land. Western miners and other users of powders and dynamite every day and all the time have the best of reasons for regarding Giant as the highest grade explosive made.

Giant Powders have become so popular that other explosives are often called by their name. Do not be misled. There is only one brand of Giant Powders. Demand the genuine. The Giant trade-mark is on every case for your protection.

The GIANT POWDER CO., CON.
SAN FRANCISCO, CAL.

POWDERS for MINING and QUARRYING

Branch Offices: Denver, Portland, Salt Lake City, Seattle, Spokane.

Generated on 2024-09-30 01:43 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Sacramento Pipe Works

MANUFACTURERS

SHEET STEEL RIVETED PIPE
WELL CASING and AIR PIPE

WHOLESALE DISTRIBUTORS

Standard Pipe — Screw Joint Casing
Pipe and Casing Fittings — Valves and Brass Goods

Hydraulic Engineers and Contractors

SACRAMENTO, CAL.

Clark & Henery Construction Company

General Contractors

Main Office: Clark & Henery Bldg., Stockton, Cal.
Sacramento Office: Ochsner Bldg., Sacramento, Cal.

Dredges and Ditchers

Clam Shell, Drag Line, Shovel — Floating and Traction

IRRIGATION MACHINERY

General Foundry, Machine, Forge Shops.
Iron and Bronze Castings.

STOCKTON IRON WORKS, Stockton, Cal.

Fairchild-Gilmore-Wilton Company

PAVING CONTRACTORS

MAIN OFFICE—Pacific Electric Bdg., Los Angeles
BRANCHES—San Diego, San Pedro, Wilmington Long Beach, Pasadena
QUARRIES—Spadra, Corona, and Victorville

FOR RENT

BY THE MONTH

Work Stock — Steam Shovels
Dump Wagons — Locomotives
Scrapers — Locomotive Cranes
Dump Cars — Road Rollers
Graders — Concrete Mixers

Complete Standard and Narrow Gauge and Concrete Highway Construction Outfits

Palmer & McBryde

Telephone, Sutter 4180. 503 Market St., San Francisco, Cal.

THE GUTTA PERCHA & RUBBER MFG. CO.

Mechanical Rubber Goods

Water Hose — Suction Hose
Fire Hose — Belting

34 FREMONT STREET, SAN FRANCISCO

Reinforcing bars cut to length, fabricated or placed.

Wrought Iron or Steel Pipe.

Silica Sand — Pig Iron—Coke—Ferro Alloys
Electric Furnaces — Cupolas, Foundry Equipment
Graphite Electrodes — Electric Storage Battery Trucks
Furnace Refractories — Electric Traveling Cranes
Fluorspar — and Handling Machinery

WOODS, HUDDART & GUNN

444 MARKET ST. San Francisco

Madewell Pipe and Culvert Works

Main Office and Factory

East 12th Street and 25th Avenue
OAKLAND, CAL.

Write for Prices and Discounts on

CORRUGATED CULVERTS, ARCHES,
IRRIGATION AND FLOOD GATES

Generated on 2024-09-30 01:37 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Phone Sutter 1771

SHATTUCK-EDINGER CO.
Contractors and Engineers

309 Underwood Bldg., San Francisco
Main Office: 414 Marsh-Strong Bldg., Los Angeles

Chicago Pneumatic Tool Co.

AIR COMPRESSORS
FUEL OIL ENGINE COMPRESSORS
AIR RECEIVERS
ROCK DRILLS
OIL ENGINES HOSE AND SUPPLIES
GASOLINE ENGINES
MINING HOISTS
PNEUMATIC TOOLS
ELECTRIC TOOLS
LITTLE GIANT AUTO TRUCKS WATER LIFT SYSTEMS
CONVERT-A-CARS

Complete stock on hand in San Francisco and Los Angeles

OFFICES:
CHICAGO - - - - - NEW YORK
SAN FRANCISCO .....175 First St.
LOS ANGELES .....521 Title Insurance Bldg.
PORTLAND .....307 Railway Exchange Bldg.
PHOENIX, ARIZ.

M. P. HOLMES
General Contractor

2400 Haste Street BERKELEY, CAL.

Phone Sutter 3001

H. P. Braddock & Co.

CONTRACTOR'S BONDS
AND
INSURANCE

417 Kohl Bldg. San Francisco

PHONE: {SUTTER 4220
{SUTTER 4221

SMITH, LYNDEN & CO.
WHOLESALE GROCERS

BUTTER, EGGS, CHEESE AND PROVISIONS
DEALERS IN COMMISSARY SUPPLIES

231-239 DAVIS STREET, SAN FRANCISCO

CHAS. C. MOORE & CO. ENGINEERS INC.

Contractors for Complete Plants
HIGH GRADE MACHINERY

Home Office: Sheldon Building, First and Market Streets
SAN FRANCISCO

New York City
Fulton Bldg.
Salt Lake City
Kearns Bldg.
Los Angeles
I. N. Van Nuys Bldg.
Tucson
Santa Rita Hotel Bldg.
Seattle
Mutual Life Bldg.

J. H. HOPPS JOHN DANIEL

Daniel Contracting Co.

ENGINEERS AND
CONTRACTORS

503 Market Street, San Francisco
Telephone Kearny 1803

Be
"Prepared"
to
Handle Your Next Job

Check article on which you desire information.

	Wheelbarrows: Wooden; Steel Tray; Concrete.
	Scrapers: Drag and Wheeled.
	Carts: Contractor's.

The Kilbourne & Jacobs Mfg. Co.
Columbus, Ohio, U. S. A.
New York: 25 Broad St. London, E. C.
CUT OUT AND RETURN TO US

Generated on 2024-09-30 01:45 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Professional Directory

ADAM, Carl F.,
Consulting Engineer
Paving, Asphalt Refining, Testing.
2653 Menlo Ave., Los Angeles

BYLLESBY, H. M. & CO.
Engineers
Electric Light, Gas, Street Railway and Water Power Properties. New York: Trinity Bdg.
Chicago: 208 S. La Salle Street

DEWELL, H. D., Assoc. M. Am. Soc. C.E.
Civil Engineer
Chief Structural Engineer Pan-Pac. Exposition.
Structures—Hydraulics—Irrigation
58 Sutter St., San Francisco

DICKIE, G. W.,
Consulting Eng. and Naval Architect
Past Manager Am. Soc. M. E., Mem. of Council Soc. Naval Architects and Marine Engineers.
24 California St., San Francisco.

EASTWOOD, John S., C. E.,
Consulting Engineer
EASTWOOD MULTIPLE ARCH DAMS.
Hearst Bdg., San Francisco, Cal.

FIELDING, J. S.
Owner of Patents Controlling
Concrete Hollow Dam Construction
Ambridge, Pa.
633 Main and 3rd Sts., Los Angeles, Cal.

FOX, Chas. Kirby,
Civil Engineer
Irrigation, Investigation, Construction and Valuation.
Pomona, Cal. Code: Bedford McNeill

HAAS, Herbert,
Consulting Engineer
Diesel Engine Power.
524 Merchants Exchange Bdg., San Francisco.

HUBER, Frederick W.,
Consulting Chemical Engineer
Structural Materials and Industrial Research.
Title Insurance Bdg., Los Angeles, Cal.

LEE, Charles H., Asso. M. Am. Soc. C. E.
Consulting Engineer
Water Supply, Water Power and Irrigation.
1103-6 Central Bdg., Los Angeles.

LEONARD & DAY,
Consulting Engineers
Bridges, Buildings and Foundations.
528-30 Rialto Bdg., San Francisco.

PARSONS, A. T.,
Consulting Engineer
Associate Editor Metal Trades.
No professional work undertaken.

SANDERSON & PORTER,
Engineers and Contractors
Reports, Designs, Construction, Management, Hydroelectric, Railway Light and Power Properties, Oil Pipe Lines. New York, San Francisco.

STROUD, B. K.,
Petroleum Engineer
First National Bank Bdg., Oakland, Cal.

TRASK, F. E.,
Consulting Civil & Hydraulic Engineer
Specialty: Water Works, Power Plants, Reports.
Union Oil Bdg., Los Angeles, Cal.

YOUNG, E. J.
Consulting Geologist and Engineer
Offices and Laboratory, Story Building,
Los Angeles, California.
Examinations and Reports on All Mineral Deposits, Formations and Processes of Extraction.
20 Years' Experience in the Western States Pacific Coast States, Mexico and Central America.

TROJAN EXPLOSIVES

The Most Powerful Made
Safe and Economical

Manufactured on a solid base and do not contain any liquid explosive ingredient.

Will not freeze **Will not exude**
Will not give off noxious gases

No thawing
No leaking
No headaches

California Trojan Powder Company

Phelan Building **Railway Exchange Bdg.**
San Francisco, Cal. **Portland, Oregon**

THE YUBA MANUFACTURING CO.

YUBA HYDRAULIC DREDGES
YUBA GOLD DREDGES
YUBA CENTRIFUGAL PUMPS
YUBA BALL TREAD TRACTORS

YUBA MANUFACTURING CO.

433 California Street, **Works:**
San Francisco **Marysville, California**

GET ALL THE BIDDERS FROM ALL OVER THE UNITED STATES

You save money by putting your proposal ads in the

Engineering News-Record
(A consolidation of Engineering News and Engineering Record)

Through this one dominant paper, you can now reach practically every worth-while contractor and manufacturer who wants to figure on public contracts.

Get Their Prices on Your Work

The rate is $3.60 an inch. Plans filed free in all our offices.

ENGINEERING NEWS-RECORD
Hill Building, New York Rialto Building, San Francisco
Philadelphia Chicago Cleveland

FUEL OIL
—and—
STEAM ENGINEERING

By Robert Sibley and Chas. H. Delany

A practical treatise dealing with Fuel Oil and Steam Engineering, involving the elementary laws of steam engineering as well as considerable data concerning burner, furnace, and fuel oil tests.

Cloth Bound—Illustrated—$3.00

For Sale by
MINING and Scientific PRESS 420 Market St.,
SAN FRANCISCO

Generated on 2024-09-30 01:38 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

When Distress Calls the Red Cross Answers "HERE!"

NOW the Red Cross calls! The annual Christmas Roll Call of members will echo throughout the land the week of December 16th to 23rd.

Membership in the Red Cross now is more than duty—it is an honored privilege, and an evidence of loyalty. When that Roll is called, your conscience, your sense of right and justice, your love of country and your devotion to the highest ideals of unselfish service all suggest that you answer "HERE!"

All you need is a heart and a dollar

These entitle you to membership for one year.

When you wear your button, signifying that you are a member, you will not be asked to join again this year—it means that you have answered the Roll Call.

Join—be a Christmas member—but just join once.

Our soldiers and sailors look to the Red Cross for comforts. They have never been disappointed.

The Red Cross looks to you for the moral support of your membership. Answer "HERE!" when the Roll is called.

Join the Red Cross

Contributed through Division of Advertising

United States Gov't Comm. on Public Information

This space contributed for the Winning of the War by

METAL TRADES

1918

Wear Your Button

Fly Your Flag

Generated on 2024-09-30 01:39 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

WHERE TO BUY

Leading Manufacturers and Dealers in Machinery, Supplies and Instruments. If you do not find what you want here, write us and we will give you the names of competent and reliable dealers.

FOR ADDRESSES SEE DIRECTORY ON PAGE 20

Asphalt
Fairchild-Gilmore-Wilton Co.
Standard Oil Co.

Asphalt Plants
Harron, Rickard & McCone
Kinney Manufacturing Co.
Young Machinery Co., A. L.

Auto Trucks
Chicago Pneumatic Tool Co.
Kinney Manufacturing Co.

Belting
Gutta Percha & Rubber Mfg. Co.
Harron, Rickard & McCone
N. Y. Belting & Packing Co.
Simpson Co., A. H.

Blasting Supplies
California Trojan Powder Co.
Giant Powder Co.

Blowers
Ingersoll-Rand Company
Simpson Co., A. H.

Boilers
Moore & Co., Chas. C., Engineers
Simpson Co., A. H.

Bonds, Contractors
Braddock & Co., H. P.

Brushes, Motor, and Generator
General Electric Co.
Westinghouse Electric & Mfg. Co

Buckets
Harron, Rickard & McCone
Meese & Gottfried Company
Simpson Co., A. H.

Buckets, Concrete
Garfield & Co.
Harron, Rickard & McCone
Kilbourne & Jacobs Mfg. Co.
Simpson Co., A. H.

Cables
Moon Co., Geo. C.

Cars, Contractors'
Garfield & Co.
Harron, Rickard & McCone
Kilbourne & Jacobs Mfg. Co.
Simpson Co., A. H.

Cars, Dump
Harron, Rickard & McCone
Kilbourne & Jacobs Mfg. Co.
Simpson Co., A. H.

Carts, Concrete
Harron, Rickard & McCone
Kilbourne & Jacobs Mfg. Co.

Castings
Enterprise Foundry Co.
Pacific Foundry Co.

Cement, Portland
Cowell Lime & Cement Co., Henry

Chain
Meese & Gottfried Company

Chains, Transmission
(See 'Transmission Machinery')

Coal Handling Machinery
Meese & Gottfried Company

Compressors, Air
Chicago Pneumatic Tool Co.
Ingersoll-Rand Company
Moore & Co., Chas. C., Engineers
Simpson Co., A. H.
Sullivan Machinery Co.

Connectors, Frankel Solderless
Westinghouse Electric & Mfg. Co.

Concrete Mixers
Garfield & Co.
Harron, Rickard & McCone
Simpson Co., A. H.
Young Machinery Co., A. L.

Contractors Bonds
Braddock & Co., H. P.

Contractors, General
Braddock Co., H. P.
Clark & Henery Construction Co.
Daniel Contracting Co
Fairchild-Gilmore-Wilton Co.
Holmes, M. P.
Palmer & McBryde
Shattuck-Edinger Co.

Contractors' Machinery
Austin, F. C. Drainage Excavator Co.
Chicago Pneumatic Tool Co.
Garfield & Co.
Harron, Rickard & McCone
Jackson Iron Works, Byron
Kilbourne & Jacobs Mfg. Co.
Kinney Manufacturing Co.
Simpson Co., A. H.
Young Machinery Co., A. L.

Cranes
Browning Co., The
Harron, Rickard & McCone

Crushers
Harron, Rickard & McCone
Meese & Gottfried Company
Simpson Co., A. H.

Culverts, Corrugated
Armco Iron Culvert & Flume Mfrs. Assoc.
Coast Culvert & Flume Co
Madewell Pipe & Culvert Works
Spokane Corrugated Culvert & Tank Co.
Western Pipe & Steel Co.

Derricks
Carnegie Steel Co.
Harron, Rickard & McCone

Ditch Diggers
Buckeye Traction Ditcher Co.
Harron, Rickard & McCone
Young Machinery Co., A. L.

Dragline Excavators
Harron, Rickard & McCone
Meese & Gottfried Company
Stockton Iron Works

Dredges, Dipper
Yuba Manufacturing Co., The

Dredging Machinery
Stockton Iron Works
Yuba Manufacturing Co., The

Drills, Air and Steam
Chicago Pneumatic Tool Co.
Ingersoll-Rand Co.
Simpson Co., A. H.
Sullivan Machinery Co.

Electrical Machinery
General Electric Co.
Westinghouse Electric & Mfg. Co

Engine-Generators, Gasoline
General Electric Co.
Simpson Co., A. H.

Engines, Oil
Chicago Pneumatic Tool Co.

Engines, Steam
Moore & Co., Chas. C., Engineers

Explosives
California Trojan Powder Co.
Giant Powder Co.

Flumes, Iron
Armco Iron Culvert & Flume Mfrs. Assoc.
Madewell Pipe & Culvert Works
Western Pipe & Steel Co.

Flushers, Street
Kinney Manufacturing Co.

Gears
General Electric Co.
Meese & Gottfried Company
Johnson Gear Co.

Gears, Silent
General Electric Co.
Westinghouse Electric & Mfg. Co.

Generators, Electric
General Electric Co.
Westinghouse Electric & Mfg. Co.

Graders
Harron, Rickard & McCone
Kilbourne & Jacobs Mfg. Co.

Grocers, Wholesale
Smith, Lynden & Co.

Hoisting Machinery
Harron, Rickard & McCone
Simpson Co., A. H.

Hoist Cables
Moon Co., Geo. C.

Hoists, Electric
General Electric Co.
Sullivan Machinery Co.

Hose, Air, Steam and Water
Gutta Percha & Rubber Mfg. Co.
Harron, Rickard & McCone
N. Y. Belting & Packing Co.

Hose, Suction
Gutta Percha & Rubber Mfg. Co.
Harron, Rickard & McCone
N. Y. Belting & Packing Co.

Hydrants
Western Pipe & Steel Co.

Hydraulic Supplies
American Well Works
Carnegie Steel Co.
Harron, Rickard & McCone
Jackson Iron Works, Byron
Sacramento Pipe Works
Western Pipe & Steel Co.

Insurance
Braddock & Co., H. P.

Irrigation Machinery
Stockton Iron Works
Simpson Co., A. H.

Lamps, Arc and Incandescent
General Electric Co.
Westinghouse Electric & Mfg. Co.

Lock-Nuts
Drake Lock-Nut Co.

Locomotives, Electric
General Electric Co.
Westinghouse Electric & Mfg. Co.

Locomotive Cranes, Steam
Harron, Rickard & McCone

Meters, Oil, Steam, Water, and Gas
General Electric Co.

Motors
General Electric Co.
Simpson Co., A. H.
Westinghouse Electric & Mfg. Co.

Packing and Gaskets
Gutta Percha & Rubber Mfg. Co.
N. Y. Belting & Packing Co.

Pattern Work
Enterprise Foundry Co.
Pacific Foundry Co.

Pavers
Garfield & Co.
Harron, Rickard & McCone

Paving Materials
Cowell Lime & Cement Co., Henry
Standard Oil Co.

Pipe Fittings
Enterprise Foundry Co.
Pacific Foundry Co.

Pipe, Genuine Iron Wrought
Woods, Huddart & Gunn

Pipe, Riveted Steel and Iron
Sacramento Pipe Works
Western Pipe & Steel Co.
Woods, Huddart & Gunn

Pipe, Wood
Pacific Tank & Pipe Co.

Pneumatic Hose
Gutta Percha & Rubber Mfg. Co
N. Y. Belting & Packing Co.

Powder
California Trojan Powder Co.
Giant Powder Co.

Power Plants
General Electric Co.
Moore & Co., Chas. C., Engineers
Westinghouse Electric & Mfg. Co

Protective Paints
Standard Oil Co.

Provisions
Smith, Lynden & Co.

Pulleys, Shafting and Hangers
(See 'Transmission Machy.')

Pumps
American Well Works
Ingersoll-Rand Company
Jackson Iron Works, Byron
Kinney Manufacturing Co.
Simpson Co., A. H.
Sullivan Machinery Co.
Yuba Manufacturing Co., The

Railway Supplies and Equipment
Harron, Rickard & McCone

Reinforcing Steel and Iron
Carnegie Steel Co.
Woods, Huddart & Gunn

Renting Machinery
Palmer & McBryde
Simpson Co., A. H.

Road Machinery
Harron, Rickard & McCone
Kinney Manufacturing Co.
Young Machinery Co., A. L.
Yuba Manufacturing Co., The
Simpson Co., A. H.

Road Oils
Standard Oil Co.

Road Rollers
Young Machinery Co., A. L.

Rock Crushers, Disc or Jaw
Harron, Rickard & McCone
Simpson Co., A. H.

Rock, Ore, and Gravel Handling Machinery
Harron, Rickard & McCone

Rope, Manila and Jute
Harron, Rickard & McCone
Meese & Gottfried Company

Rope, Wire
Harron, Rickard & McCone

Rubber Goods
N. Y. Belting & Packing Co.

Safety Appliances
General Electric Co.

Saw Mill Machinery
Garfield & Co.
Harron, Rickard & McCone
Meese & Gottfried Company

Scrap Iron
California Iron Yards Co.

Screens
Harron, Rickard & McCone
Meese & Gottfried Company

Second-Hand Equipment
Simpson Co., A. H

Second Hand Structural Material
California Iron Yards Co.

Sewer Ditching Machines
Buckeye Traction Ditcher Co.
Harron, Rickard & McCone
Young Machinery Co., A. L.

Sewer Pipe
Armco Iron Culvert & Flume Mfrs. Assoc.
Pacific Tank & Pipe Co.

Shafting
(See 'Transmission Machy.')

Shoes and Dies
Harron, Rickard & McCone

Shovels, Steam
Harron, Rickard & McCone

Solderless Connectors, Frankel
Westinghouse Electric & Mfg. Co.

Sprinklers, Street
Kinney Manufacturing Co.

Steel, Drill and Sheet
Carnegie Steel Co.
Sacramento Pipe Works
Western Pipe & Steel Co.

Strands
Moon Co., Geo. C.

Suction Dredges
Yuba Manufacturing Co., The

Tanks
California Redwood Association
Pacific Tank & Pipe Co.

Tractors
Yuba Manufacturing Co., The

Transmission Machinery
Harron, Rickard & McCone
Meese & Gottfried Company
Moon Co., Geo. C.

Turbines, Steam
General Electric Co.
Moore & Co., Chas. C., Engineers
Westinghouse Electric & Mfg. Co.

Valves
Western Pipe & Steel Co.

Water Mains
Pacific Tank & Pipe Co.
Sacramento Pipe Works
Western Pipe & Steel Co.

Well Drilling Machinery and Supplies
Harron, Rickard & McCone

Wire Rope
Moon Co., Geo. C.

Wire, Insulated
General Electric Co.
Meese & Gottfried Company
Westinghouse Electric & Mfg. Co.

Generated on 2024-09-30 01:39 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

OPPORTUNITIES

Under this heading announcements may be made of new and second-hand machinery or supplies, for sale or wanted. The cost is five cents per word, including address, one dollar minimum order. Remittances MUST accompany order.

FOR SALE

Buckeye Ditching Machine, 28 inch by 12 feet; slightly used, perfect condition. Low price to close estate. Address Opp. 101, Metal Trades.

DUMP CARS WANTED

Koppel cars or some other good make of dump cars. Capacity about a yard. State condition, where to be seen, and price. Address Opp. 102, Metal Trades.

Have you any second-hand equipment for sale?

Sell through the Opportunity Section

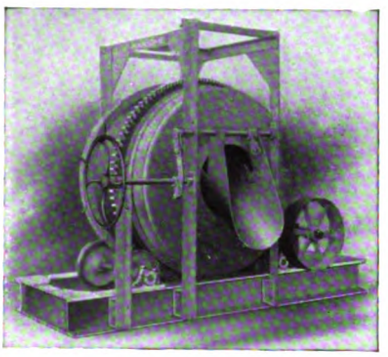
Why not get rid of the equipment you can't use? If you want second-hand equipment ask for it in the Opportunity Section.

The Chemical Analysis of Iron

By A. A. Blair. 310 pp. Cloth. $5.00
Eighth Edition. 1918

A complete account of all the best known methods for the analysis of Iron, Steel, Pig-Iron, Alloy Metals, Iron Ore, Limestone, Slag, Clay, Sand, Coal and Coke.

MINING and Scientific PRESS
420 Market St., San Francisco, California



Large Capacity Ransome Mixers equipped as Desired

RANSOME MIXERS

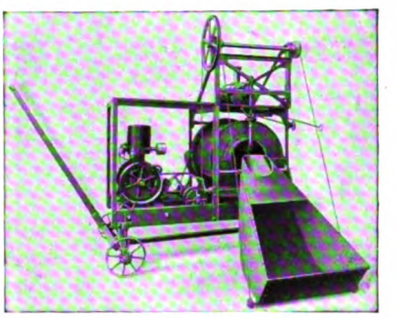
—also—

HOIST BUCKETS, HOPPERS, GATES, SKIPS, STEEL CARS AND TRACK, GASOLINE ENGINES, GASOLINE HOISTS, CARSIDE HOPPERS, CLAM-SHELL AND ORANGE PEEL BUCKETS.

Everything used by contractors. In San Francisco stock for immediate delivery.

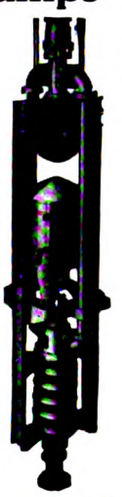
—Address—

GARFIELD & COMPANY
1232 Hearst Bldg. S. F., Phone Sutter 1036



1 bag Ransome Bantam Mixer

Features That Count For Superiority in Mine Pumps



It is not only the highest development of the centrifugal principle of pumping that makes "American" centrifugals excel as mine pumps, but the development of special balanced types with grit-proof bearings which enables them to be installed in any location and operate successfully under the most difficult pumping conditions.

Several new types of sinker, inclined shaft and station pumps represent advanced practice in mine pump design you should know about.

Catalog 149 describes them.
Write for your copy.

THE AMERICAN WELL WORKS

General Office and Works
Aurora, Ill.

Chicago Office
First National Bank Building.

Western Sales Agents:

California Hydraulic Eng. & Supply Co., 74 Fremont St., San Francisco.
American Pump Co., Los Angeles.
Green Machinery & Manufacturing Co. Salt Lake City.
M. J. O'Fallon Supply Co., Denver

Johnson Gears
ARE DEPENDABLE

CUT GEARS

Spur
Bevel
Worm
Internal
Spiral
Herringbone

—of—

Cast Iron **Steel**
Bronze or Rawhide

Johnson Gear Company

735 Folsom St. San Francisco

Generated on 2024-09-30 01:38 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Coast Agents for **REX CHAINS—**

EVERY SIZE AND VARIETY—*Send for Catalog No. 70*

Meese & Gottfried Company

ENGINEERS AND MANUFACTURERS

Elevating, Conveying, Screening and Mechanical Power Transmitting Machinery

PORTLAND SAN FRANCISCO LOS ANGELES SEATTLE SALT LAKE CITY

ALPHABETICAL INDEX TO ADVERTISERS

WHERE TO BUY, PAGE 18

	Page
AMERICAN WELL WORKS	19
ARMCO IRON CULVERT & FLUME MFRS. ASSOCIATION	2
AUSTIN, F. C., Inc.	10
BRADDOCK CO., H. P.	15
BUCKEYE TRACTION DITCHER CO.	8
CALIFORNIA IRON YARDS CO.	8
CALIFORNIA TROJAN POWDER CO.	16
CALIFORNIA REDWOOD ASSOCIATION	—
CARNEGIE STEEL CO.	9
CHICAGO PNEUMATIC TOOL CO.	15
CLARK & HENERY CONSTRUCTION CO.	14
COWELL LIME & CEMENT CO., HENRY	22
COWEN, W. H.	10
DANIEL CONTRACTING CO.	15
DRAKE LOCK-NUT CO.	11
ENGINEERING BOOKS	21
ENGINEERING NEWS-RECORD	16
ENTERPRISE FOUNDRY CO.	4
FAIRCHILD-GILMORE-WILTON CO.	14
GARFIELD & CO.	10-19
GENERAL ELECTRIC CO.	12
GIANT POWDER CO.	13
GUTTA PERCHA & RUBBER MFG. CO.	14
HANSEN & CO., J. H.	—
HARRON, RICKARD & McCONE	4
HOLMES, M. P.	15
INGERSOLL-RAND COMPANY	9
JACKSON IRON WORKS, BYRON	10
JOHNSON GEAR CO.	19
KILBOURNE & JACOBS MFG. CO.	15
KINNEY MANUFACTURING CO.	10
MADEWELL PIPE & CULVERT WORKS	14
MEESE & GOTTFRIED COMPANY	20
MOORE & CO., CHAS. C., ENGINEERS	15
MOON CO., GEO. C.	5
N. Y. BELTING & PACKING CO.	—
OSHKOSH MANUFACTURING CO.	10
PACIFIC FOUNDRY CO.	6
PACIFIC TANK & PIPE CO.	6
PALMER & McBRYDE	14
PROFESSIONAL DIRECTORY	16
RANSOME CONCRETE MACHINERY CO.	19
ROLPH, MILLS & CO.	5
SACRAMENTO PIPE WORKS	14
SECOND-HAND EQUIPMENT	13
SHATTUCK-EDINGER CO.	15
SIMPSON CO., A. H.	13
SMITH, LYNDEN & CO.	15
STANDARD OIL CO.	7
STOCKTON IRON WORKS	14
SULLIVAN MACHINERY CO.	13
WESTERN PIPE & STEEL CO.	5
WESTINGHOUSE ELECTRIC & MFG. CO.	8
WOODS, HUDDART & GUNN	14
YOUNG MACHINERY CO., A. L.	8
YUBA MANUFACTURING CO., THE	16

Generated on 2024-09-30 01:38 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

We Carry in Stock a Large Assortment of Standard Engineering Books

UP-TO-DATE MACHINERY BOOKS

OXY-ACETYLENE WELDING PRACTICE
By Kehl $1.00

PRACTICAL TREATISE FOR BOILER-MAKERS
By Haddon 3.00

AMERICAN MACHINISTS' GEARBOOK
By Logue 2.50

PRINCIPLES OF IRON FOUNDING
By Moldenke 4.00

AMERICAN LUBRICANTS
By Lockhart 2.00

LUBRICATING ENGINEERS' HANDBOOK
By Battle 4.00

HANDBOOK OF PIPING
By Svensen $4.00

COMPRESSED AIR AND ITS APPLICATION
By Hiscox 5.00

STEAM POWER PLANT ENGINEERING
By Gebhardt 4.00

STORAGE BATTERY ENGINEERING
By Lyndon 4.00

MECHANICAL REFRIGERATION
By McIntire 4.00

MACHINERY'S HANDBOOK 5.00

AMERICAN MACHINISTS' HANDBOOK
By Colvin and Stanley 3.00

MECHANICAL ENGINEERS' HANDBOOK

LIONEL S. MARKS, Editor-in-Chief

1750 pp. Up-to-Date Fabrikoid Binding
$5.00 net

This compilation of engineering data is designed especially to meet the needs and requirements of both the student and the engineer. Contains fifteen sections compiled and written by some of the best known men of the profession.

MECHANICS' AND ENGINEERS' HANDBOOK

By CHAS. H. HASWELL

1050 pp. Concise, Handy, Thorough Flexible Leather Binding
$4.00 NET

This handbook of ready reference contains tables, rules, and formulas, pertaining to Mechanics, Mathematics and Physics, including Areas, Squares, Cubes and Roots. Also data on Compressed Air, Limes, Cements, Mortars and Masonry, etc.

MINING and Scientific PRESS, 420 Market St.,
San Francisco, California

Gentlemen: Enclosed please find $..... for which please send me, postage prepaid, the following books:

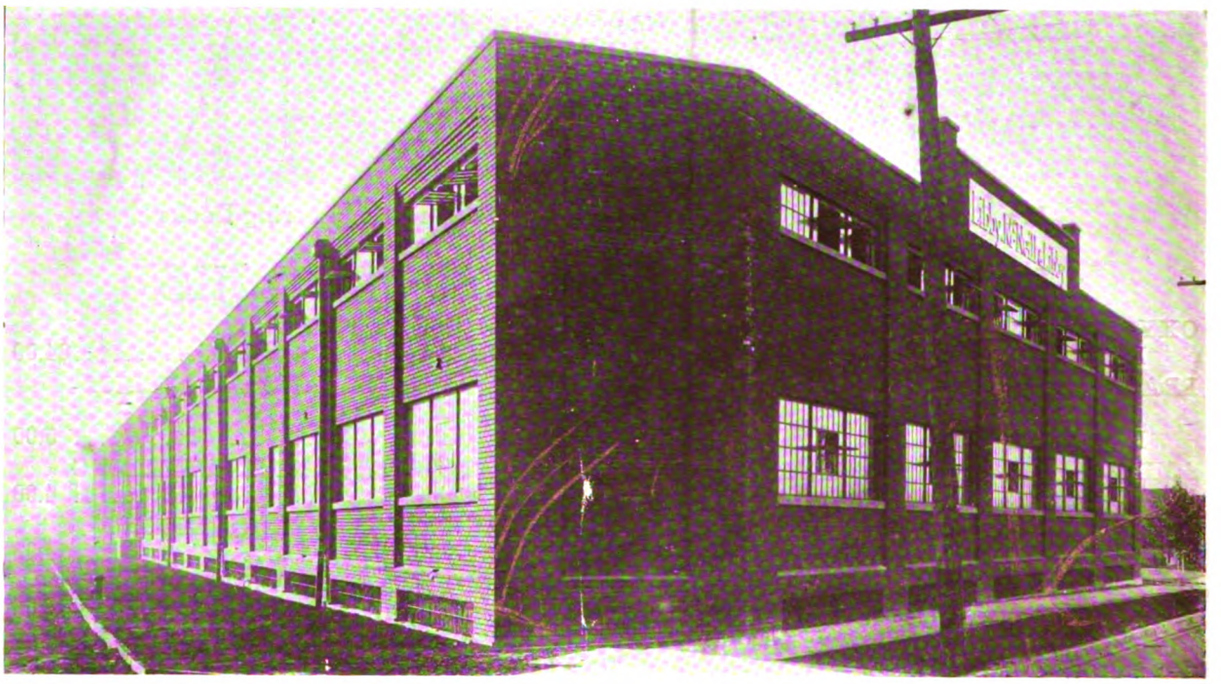
..... $..... ..... $.....
..... $..... ..... $.....
..... $..... ..... $.....
..... $..... ..... $.....

Name .....

Address .....

Generated on 2024-09-30 01:37 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

No. 2 Market Street **San Francisco, California**



LIBBY, McNEILL & LIBBY BUILDING
SACRAMENTO, CAL.

Washington J. Miller, San Francisco
Architect and Engineer

Palmer & Peterson, San Francisco
General Contractors and Builders

Manufacturers of

Mt. Diablo Cement

Awarded Gold Medal, P. P. I. E.

Cowell Santa Cruz Lime

BRANCHES:

OAKLAND
SAN JOSE
PORTLAND, OREGON
TACOMA, WASHINGTON
SACRAMENTO
SANTA CRUZ

Generated on 2024-09-30 01:39 GMT / https://hdl.handle.net/2027/uiug.30112007838441
Public Domain, Google-digitized / http://www.hathitrust.org/access_use#pd-google
Digitized by Google
Original from
UNIVERSITY OF ILLINOIS AT
URBANA-CHAMPAIGN